

## Lemon balm: A promising herbal therapy for patients with borderlinehyperlipidemia—A randomized double-blind placebo-controlledclinical trial

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### ABSTRACT

*Objective:* Melissa officinalis is a perennial herb from the Lamiaceae family which has shown to havemodulating effects on serum lipid profile. The aim of the current study is to explore the effects of M.officinalis supplementation on serum biochemical parameters of patients with borderline hyperlipidemia.

*Methods:* 58 hyperlipidemic patients were allocated randomly to 2 groups: first group received capsulescontaining 1000 mg M. officinalis leaf powder (MO group), and the second group received placebo capsules (P group) 3 times per day for 2 months. Fasting blood glucose (FBG), HDL, LDL, Triglyceride, Creatinineand liver function enzymes including AST and ALT were evaluated before and after study.

*Results:* The mean of LDL in MO group significantly decreased compared with P group after the supple-mentation ( $P = 0.02$ ). Although the level of Cholesterol, FBG, HDL, Triglyceride, Creatinine and ALT did notshow significant difference between two groups after 2 months ( $P \geq 0.05$ ), the level of AST exhibited asignificant difference between two groups ( $P = 0.009$ ).

*Conclusions:* Our findings demonstrated that M. officinalis supplementation as a rich source of antioxidantsand bioactive compounds can be effective in remission of LDL and AST levels in patients with borderlinehyperlipidemia.

**Keywords:** Lemon balm, Melissa officinalis, Blood glucose, Hyperlipidemia, Lipid profile, Liver enzyme

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Received 6 February 2016

Accepted 21 March 2016

Available online 26 March 2016